

CLAIMS

1. Process for producing a mammal belonging to a non-human species rendered resistant by germinal transgenesis to an infection by an alphaherpesvirus, for which the polypeptide HveC or nectin-1 constitutes a functional receptor, characterised in that a transgene allowing the expression of a chimeric protein composed on the one hand of the extracellular domain of the nectin-1 or HveC or of one of its parts and on the other of the crystallisable fragment of an immunoglobulin, is introduced by insertion or homologous recombination in the genome of the cells constituting the germinal line of the mammal, in an appropriate system of expression.
2. Process according to claim 1, characterised in that the immunoglobulin is a gamma type immunoglobulin.
3. Process according to any one of claims 1 and 2, characterised in that the nectin-1 or HveC and/or immunoglobulin belong to the homologous species.
4. Mammal belonging to a non-human species, characterised in that it has been rendered resistant by germinal transgenesis to an infection by an alphaherpesvirus for which the polypeptide HveC or nectin-1 constitutes a functional receptor by the effect of the expression of a chimeric protein composed on the one hand of the extracellular domain of the nectin-1 or HveC, preferably of the homologous species, and on the other hand of the crystallisable fragment of an immunoglobulin, notably a gamma type immunoglobulin, preferably of the homologous species.
5. Mammal according to claim 4, characterised in that

the specific receptor of the alphaherpesvirus is a sub-part of the extracellular domain of nectin-1 or HveC.

6. Mammal according to any one of claims 4 and 5,
5 characterised in that
it belongs to the porcine species and the alphaherpesvirus is the PRV virus.

7. Mammal according to any one of claims 4 and 5,
10 characterised in that
it belongs to the bovine species and the alphaherpesvirus is the BHV-1 virus.

8. Mammal according to any one of claims 4 to 7,
15 characterised in that
it contains in the genome of its cells a coding transgene for a chimeric protein composed on the one hand of the extracellular domain of nectin-1 or HveC or of one of its parts, and on the other of the crystallisable fragment of an
20 immunoglobulin, in an appropriate expression system, this transgene having been inserted in the genome of the germinal line of one of its parents.

9. Genetic material such as semen or oocyte or embryo
25 essentially derived from the mammal according to any of claims 4 to 8.